

# TREE PROTECTION AND LANDSCAPE ORDINANCE FOR

---

## CITY OF GARDEN CITY, GEORGIA



DECEMBER 18, 2007

ADOPTED: \_\_\_\_\_

**Subject Matter:** Tree Protection and Landscape Ordinance  
**Date First Presented and Read by Council at**  
**Public Meeting:** \_\_\_\_\_  
**Date of Adoption and Second Reading at a**  
**Public Meeting:** \_\_\_\_\_

**CITY OF GARDEN CITY  
COUNTY OF CHATHAM  
STATE OF GEORGIA**

**ORDINANCE NUMBER \_\_\_\_\_**  
**CITY OF GARDEN CITY, GEORGIA**  
**PREAMBLE & FINDINGS**

**WHEREAS**, it is the finding of the Mayor and City Council of the City of Garden City that the historical, cultural and aesthetic heritage of the City of Garden City are some of its most valued and important assets and that the preservation of this heritage is essential to the promotion of the health, prosperity and general welfare of its people; that the landscape features of the City have a special historical, cultural and aesthetic interest and value to the City and its people; and

**WHEREAS**, the City of Garden City finds the preservation of mature trees within the City of Garden City promotes the health, safety and general welfare of the City and its people because mature trees serve in the purification of air, the moderation of the micro-climate, the reduction of noise and glare, the conservation of energy, the prevention of soil erosion, improvement of storm water management, enhancement and the stabilization of property values and is important in the preservation of the City's aesthetic character; and

**WHEREAS**, it is the desire of the City of Garden City to promote and to provide for the health, safety and general welfare of its citizens, it is the desire of the City to enact this Tree Protection and Landscape Ordinance.

**WHEREFORE, THE CITY OF GARDEN CITY HEREBY ADOPTS, ORDAINS AND ENACTS THE FORGOING TREE PROTECTION AND LANDSCAPE ORDINANCE AS FOLLOWS:**

**TABLE OF CONTENTS**

**ARTICLE ONE**

**Sec. 100**            **PURPOSE . . . . . 5**

**Sec. 101**            **DEFINITIONS . . . . . 5**

**Sec. 102**            **APPLICABILITY . . . . . 10**

**Sec. 103**            **PERMITTING PROCEDURES . . . . . 11**

**ARTICLE TWO**

**Sec. 104**            **TREE PROTECTION AND REPLACEMENT . . . . . 13**

**Sec. 105**            **PLANNING AND DESIGN CONSIDERATION . . . . . 13**

**Sec. 106**            **PROTECTION OF EXISTING TREES . . . . . 14**

**Sec. 107**            **DETERMINATION OF SITE DENSITY FACTORS . . . . . 16**

**Sec. 108**            **SPECIMEN TREES . . . . . 17**

**Sec. 109**            **PARKING LOT TREE REQUIREMENTS . . . . . 19**

**Sec. 110**            **LANDSCAPE PLANTING STRIP REQUIREMENTS . . . . . 21**

**Sec. 111**            **BUFFERS . . . . . 23**

**Sec. 112**            **SCREENING . . . . . 25**

**Sec. 113**            **BUILDING LANDSCAPING REQUIREMENTS . . . . . 25**

**ARTICLE THREE**

**Sec. 114**            **PREPARATION OF TREE PROTECTION PLAN . . . . . 27**

**ARTICLE FOUR**

**Sec. 115**            **TREE REMOVAL STANDARDS AND GUIDELINES . . . . . 29**

**Sec. 116**            **TREE REMOVAL . . . . . 30**

**Sec. 117**            **TREE PRUNING . . . . . 30**

**Sec. 118**            **MAINTENANCE AND FISCAL SURETY . . . . . 31**

<b>Sec. 119</b>	<b>PLANT ESTABLISHMENT . . . . .</b>	<b>32</b>
<b>Sec. 120</b>	<b>SINGLE-FAMILY RESIDENTIAL REQUIREMENTS . . . . .</b>	<b>32</b>
<b>APPENDIX A</b>	<b>CITY OF GARDEN CITY APPROVED PLANT LIST. . . . .</b>	<b>36</b>
<b>APPENDIX B</b>	<b>TREE PROTECTION DETAIL . . . . .</b>	<b>42</b>
<b>APPENDIX C</b>	<b>CHARTS FOR CALCULATING REQUIRED TREE DENSITY . . . . .</b>	<b>43</b>

## ARTICLE ONE

### **Sec. 100     PURPOSE**

This tree protection and landscaping ordinance has been developed to benefit the environmental and aesthetic quality of the City. The intent is to create an opportunity for and to promote the protection of the City's natural resources and promote growth in a way that will provide a healthy environment for the City's future. The purpose of this article is to provide standards for the protection of trees as part of the land development process; to prevent massive grading of land, both developed and undeveloped, without provision for replacement of trees; and to protect trees during construction whenever possible in order to enhance the quality of life within the City. The regulations of this tree protection and landscaping ordinance shall be the definitive, unless otherwise directed by the zoning ordinance or City Code of Ordinances.

In accordance with this Ordinance, the owner/developer is to adhere to the following requirements:

- a) Site Density Requirements
- b) Specimen Tree Replacement
- c) Parking Lot Tree Requirements
- d) Landscape Planting Strip Requirements
- e) Buffer Zones
- f) Screening Requirements
- g) Building Landscape Requirements

It shall be the duty of the Planning Director, under authority of the City Administrator, to enforce the provisions and requirements of this article. The Planning Director has the authority to issue a variance for no more than one of the requirements listed above. Variances for more than one of the requirements listed above must be approved by the Garden City Board of Appeals.

### **Sec. 101     DEFINITIONS**

The following words, terms and phrases, when used in this ordinance, shall have the meanings ascribed to them in the Section, except where the context clearly indicates a different meaning:

**Adjoining land, lot, or parcel:** A lot or parcel of land that shares all or part of a common lot line with another lot or parcel of land.

**Aesthetic:** The perception of artistic elements or elements in the natural or created environment that is pleasing to the eye.

**Amenities:** A natural or created feature that enhances the aesthetic quality, visual appeal, or makes more attractive or satisfying a particular property, place, or area.

**Buffer:**

1. Open spaces, landscaped areas, fences, walls, berms, or any combination thereof used to physically separate or screen one use or property from another so as to visually shield or block noise, light, or other environmental nuisance;
2. An area along some natural feature designated to protect and/or preserve the essential character of such feature and allow it to be maintained in an undisturbed and natural condition;
3. A natural, undisturbed portion of a lot, except for approved access and utility crossings, which is set aside to achieve a visual barrier between the use on the lot and adjacent lots and/or uses. A buffer is achieved with vegetation, and must be replanted subject to approval by the City when sparsely vegetated. Clearing of undergrowth from a buffer is prohibited unless it is to be replanted to buffer standards.
4. Land area used to visibly separate one use from another through screening and distance, to shield or block noise, light, glare, visual, or other conditions, to block physical passage to non-similar areas, or to reduce air pollution, dust, dirt, and litter. Also "buffer area" or "buffer strip."

**Caliper:** A measure of the diameter of a tree trunk for the purpose of size grading or classification. The caliper of the trunk is measured six inches above the ground, up to and including four-inch caliper size, and twelve inches above the ground for trees up to 8" in caliper. Trees are measured at DBH above 8" in caliper larger sizes.

**City:** The City of Garden City, Georgia.

**Clearing:** The removal of vegetation from a property, whether by cutting or other means.

**Clear-cutting:** The indiscriminate and broad removal of trees, shrubs, or undergrowth. This definition shall not include the selective removal of non-native tree and shrub species when the soil is left relatively undisturbed; removal of dead trees; or normal mowing operations. See also "clearing."

**Critical root zone: (CRZ)** The minimum area beneath a tree which must be left undisturbed in order to preserve a sufficient root mass to give a tree a reasonable chance of survival. The critical root zone is approximately one and one-quarter foot (1.25') of radial distance for every inch (1") of tree's DBH, with a minimum of eight feet (8').

**Cut:**

1. A portion of land surface or area from which soil, earth, rock. Or other materials has been removed or will be removed by excavation;
2. The height below original ground surface after the material has been or will be removed.

**DBH (Diameter-at-breast-height):** is the trunk diameter (in inches) at a height of four and one-half feet above the ground. If a tree has multiple trunks below four and one-half feet, then the trunk is measured at its most narrow point beneath the split.

**Deciduous:** Plants that annually lose their leaves.

**Development:** All structures and other modifications of the natural landscape above and below ground or water, on a particular site, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavating or drilling operations.

**Drip line:** A vertical line extending from the outer surface of a tree's branch tips to the ground.

**Erosion:** The process by which land surface is worn away by the action of wind, water, ice, or gravity.

**Evergreen:** Plants that retain foliage throughout the year.

**EDF (Existing Density Factor):** The tree density units awarded for the protection of existing trees which will remain on site to be protected during construction.

**Fill:** A portion of land surface to which soil or other solid material has been added; the depth above the original ground; the height above original ground surface after the material has been or will be added.

**Grade, existing:** The vertical location of the existing ground surface prior to cutting or filling.

**Grade, finished:** The final grade or elevation of the ground surface after cutting or filling and conforming to a proposed and approved design.

**Grading:** Altering the shape of ground surfaces to specified elevations, dimensions, and/or slopes; this shall include stripping, cutting, filling, stockpiling and shaping or a combination thereof, and shall include the land in its cut or filled condition.

**Grubbing:** The removal of stumps or roots from a site.

**Land clearance:** Removal of trees and/or vegetation from the land surface.

**Land disturbance activity:** Any activity which may result in soil erosion from water or wind and the movement of sediments into state and local waters or onto lands within the state, including but not limited to clearing, dredging, grading, excavating, transporting, or filling of land but not including agricultural practices such as a family vegetable plot or forestry which is defined by law as a non-land disturbing activity

**LDA Permit (Land Disturbance Activity Permit):** Any permit other than a building permit issued by the City that authorizes clearing, grubbing, excavating, filling, grading or other land disturbance activities on a site or portion of a site. Said permit may be clearing, clearing and

grubbing, or development permit as defined and authorized under the development regulations of the City.

**Landscape plan:** A planting plan for a development, required by this ordinance.

**Landscape strip:** Land area located within the boundary of a lot and required to be set aside and used for landscaping upon which only limited encroachments are allowed.

**Landscaping:**

1. An expanse of natural scenery; or
2. Any combination of natural and man-planted and maintained features including lawns, trees, shrubs, other plants, decorative or natural ground cover, exposed rock, mulch, wood chips, water features, sculpture, paths, etc.

**Legitimate Timber Harvesting:** The act of removing harvestable trees and wooded areas which qualify as forestry land management practices or agricultural operations as defined in O.C.G.A. 12-7-17, as amended,

**Natural features:** Trees or other living vegetation, and rocks.

**RDF (Replacement density factor):** The minimum number of tree density units which must be achieved on a property after subtracting tree density units for existing trees (EDF) which will remain on site and be protected during construction.

**Screening:** The method of visually shielding or obscuring one abutting land use from another, using densely planted vegetation.

**Sediment:** Solid material, both mineral and organic, that is in suspension, is being transported or has been moved from its site of origin by air, water, ice, or gravity; the product of erosion.

**Sedimentation:** The process by which eroded material is transported and deposited by the action of wind, water, ice, or gravity.

**Shrub:** A woody plants, either, evergreen or deciduous, with a mature height usually less than ten feet.

**Site:**

1. Any tract, lot, or parcel or land in combination of tracts, lots, or parcels of land which are in one (1) ownership or are contiguous and in diverse ownership where development is to be performed as part of a unit, subdivision, or project;
2. All contiguous land and bodies of water in one (1) ownership, graded or proposed for grading or development as a unit, although not necessarily at one time;
3. Regarding historic properties, a site is the location of a significant event, a prehistoric or historical occupation or activity, or a building or structure, whether standing, ruined,



or vanished, where the location itself maintains historical or archaeological value regardless of the value of any existing structure.

**SDF (Site density factor):** The minimum number of tree density units per acre which must be achieved on a property after development (**16** units per acre, exclusive of any acreage within a zoning buffer and any trees required to be preserved or planted in a zoning buffer).

**Site plan:** A document or group of documents containing sketches, text, drawings, maps, photographs, and other material intended to present and explain certain elements of a proposed development, including physical design, siting of buildings and structures, interior vehicular and pedestrian access, the provision of improvements, and the interrelationship of these elements.

**Specimen tree:** Any tree which qualifies for special consideration for protection due to its size, species or historic relevance. Further defined at Article Two Sec. 109.

**Stripping:** see 'Grubbing'

**Topography:** The configuration of surface features of a region, including its relief and rivers, lakes, and showing relative elevations.

**Tract:** An area, parcel, site, piece of land, or property that is subject of a development application.

**Tree:** Any living, self-supporting woody perennial plant.

**Tree, overstory:** Trees that will generally reach a mature height of greater than 40 feet.

**Tree, understory:** Trees that will generally reach a mature height of under 40 feet.

**Tree density standard:** The minimum number of tree density units per acre which must be achieved on a property after development.

**Tree diameter:** see DBH, see Caliper.

**Tree Protection area:** Any portion of a site wherein are located existing trees which are proposed to be retained in order to comply with the requirements of this article. The tree protection area shall include no less than the total area beneath the tree canopy as defined by the dripline of the tree plus any additional area encompassing the critical root zone of a tree or group of trees collectively.

**Tree Protection plan:** A plan that identifies tree protection areas, existing trees to be retained and proposed trees to be planted on a property to meet minimum requirements, as well as methods of tree protection to be undertaken on the site and other pertinent information.

**Tree removal:** Any act which causes a tree to die within **two years** after commission of the act, including but not limited to damage inflicted upon the CRZ or trunk as a result of:

1. The improper use of machinery on the trees;
2. The storage of materials in or around the trees;
3. Soil compaction;
4. Altering the natural grade to expose the roots or to cover the tree's root system with more than four inches of soil;
5. Pruning judged to be excessive by the City or not in accordance with the standards set forth by the International Society of Arboriculture (ISA);
6. Paving with concrete, asphalt, or other impervious surface within such proximity as to be harmful to the tree or its root system; and
7. Application of herbicides or defoliates to any trees without first obtaining a permit.

**Tree save area:** see Tree Protection Area.

**Tree thinning:** Selective cutting or thinning of trees for the clear purpose of appropriate forestry management in order to protect said forest from disease or infestation and in no way shall be construed as clear cutting.

**Undisturbed:** un-graded, un-mowed, un-thinned, "un-encroached"

**Weeds:** Any undesired, uncultivated plant, especially one growing. In profusion so as to crowd out a desired crop, disfigure a lawn, etc. For the purposes of this article, weeds shall also include grass and/or underbrush in non-agriculturally used property, which is at least 12 inches tall.

**Zoning buffer:** A buffer, as defined in and required by the zoning ordinance or as a condition of zoning, special exception, or variance approval for a specific property.

## **Sec. 102     APPLICABILITY**

1. The terms and provisions of this article shall apply to all activity which requires the issuance of a land disturbance activity permit on any real property within the City. No clearing, grubbing, grading, or other removal of existing vegetation that may effect the health of existing tree coverage may occur until it is determined that the proposed development is in conformance with the provisions of this article and other applicable city codes and regulations.
2. Exemptions from the provisions of this article include the following project types:
  - a) Grandfathered Projects - Any property included within the limits of a LDA Permit (Land Disturbance Activity Permit) approved prior to the effective date of this article,
  - b) Horticultural or agricultural operations - Land clearing for clearly agricultural purposes, including legitimate timber harvesting operations which qualify as

forestry land management practices or agricultural operations as defined in O.C.G.A. 12-7-17, as amended, on land zoned for or used for forestry, silvicultural, or agricultural purposes; plant or tree nurseries; orchards, are exempt.

This exemption shall not include tree harvesting incidental to the development of land, or tree harvesting on land that is anticipated to be developed for non horticultural uses. Further, the operation of legitimate timber harvesting shall provide a 50-foot undisturbed buffer measured from the property line provided and maintained along all road frontages, during the land disturbance activity, except for authorized access crossings. As a minimum the buffer shall meet the buffer standards stipulated in this ordinance.

- c) The removal of diseased or infested trees - Removal upon advice and written finding of the county extension service, Georgia Forestry Commission, a certified arborist, or a state registered urban forester.

The following Matrix indicates which requirements of this ordinance apply to each general zoning classification. Note: any requirement can be applied or removed through conditions of zoning or variance.

SECTION	REQUIREMENT	GENERAL ZONING CLASSIFICATION						
		Single Family Residential	Multi-Family Residential	Commercial	Institutional	Office	Industrial	Mixed-Use
Sec. 107	SITE DENSITY	X	X	X	X	X	X	X
Sec. 108	SPECIMEN TREE REPLACEMENT	X	X	X	X	X	X	X
Sec. 109	PARKING LOT TREES		X	X	X	X	X	X
Sec. 110	LANDSCAPE STRIP		X	X	X	X	X	X
Sec. 111	BUFFERS		X	X	X	X	X	X
Sec. 112	SCREENING	X	X	X	X	X	X	X
Sec. 113	BUILDING LANDSCAPING REQUIREMENTS	X	X	X	X	X	X	X

**Sec. 103 PERMITTING PROCEDURES**

1. A tree removal permit is required to remove any tree larger than eight inches (8") in diameter from any property that is subject to a Land Disturbance Activity Permit. The fee for obtaining a tree removal permit will be part of the Land Disturbance Activity Permit fee and will be based on the number of trees to be removed. Some tree removal permits may be granted without a tree removal fee. If any tree larger than six

inches (6") in diameter is removed from any property without a tree removal permit, the property owner shall pay a fine of three times the City's tree removal permit fee. Minimum required site tree densities must be maintained at all times. Failure to maintain the required tree densities may result in re-plantings.

2. Prior to the submission of any permit drawings, the applicant is encouraged to meet with the Planning Director to discuss the tree protection/landscape ordinance as it relates to the applicant's property. The purpose of the pre-submittal conference is to clarify the provisions and procedures of this article and review applicable standards and guidelines for the submittal of documents, and required tree protection, replacement, and maintenance measures.
3. A Tree Protection and Replacement Plan shall be prepared and submitted with other permit drawings, as part of the plan approval and/or land disturbance permit process to the Planning and Economic Development Department. These plans will be reviewed by the Planning Director for compliance with the City zoning ordinance and this ordinance in particular and either approved, denied, or returned for revisions. Any comments will be made available to the designer for response or revision to the drawings. The plans shall then be resubmitted (along with previous red line comments), with the necessary changes, following the same procedure as if it were an original application. Issuance of a land disturbance permit is contingent upon approval of the tree protection plan/replacement plan.
4. An approved Tree Protection and Replacement Plan must be implemented prior to the issuance of a certificate of occupancy. When the developer/owner has installed the required landscaping improvements, he shall request an inspection by the City. If the City approves the installation, the project will be released for the issuance of a certificate of occupancy. If the City does not approve the plan, the City shall submit a report stating the reasons for disapproval so that the developer can make the necessary corrections. After the corrections have been made, a re-inspection shall be requested.

## ARTICLE TWO

### **Sec. 104 TREE PROTECTION AND REPLACEMENT**

The trees in the City of Garden City are a City resource worth protecting and maintaining. Existing trees shall not be disturbed, except as provided in this article. No person shall cut, carve or otherwise damage any tree. No person shall attach rope, wire, nails, or advertising posters to any tree. No person shall set fire or permit any fire to burn when such fire or the heat thereof will injure any portion of any tree. Any large, rare, or historically significant trees on a project site shall be highlighted by the designer (see Sec. 109 "Specimen Trees"). It is required that all reasonable efforts be made to save specimen trees. "Reasonable effort" shall include, but not be limited to, alteration of building design, alternate building location, parking area, detention area, drainage system, or relocation of utilities. Careful thought and consideration is expected to be given to saving trees in the development process.

### **Sec. 105 PLANNING AND DESIGN CONSIDERATION**

1. Tree space is the most critical factor in tree protection throughout the site development process. The root system can easily extend beyond the dripline of the tree canopy. The root system within the dripline region is generally considered to be the critical root zone (CRZ). Disturbance within this zone can directly affect a tree's chances for survival. To protect these critical root zones the following planning considerations should be applied:
  - a) The use of tree save islands and stands is encouraged rather than the protection of individual (non-specimen) trees scattered throughout a site. This will facilitate ease in overall organization as related to tree protection.
  - b) The protective zone of specimen trees or stands of trees or otherwise designated tree save areas shall include no less than the total area defined as the critical root zone.
  - c) Tree protection and grading requirements are two design constraints, which are most often in conflict. A grade change of a few inches can be detrimental to a tree, yet most sites require extensive cut and fill in order to manage drainage. The use of berms or retaining walls, instead of cutting, to provide detention should be used to preserve significant trees. Detention ponds can be designed around significant trees by adding depth to minimize width where possible. Retaining walls can also be used to mitigate cuts and fills.
  - d) Underground water and wastewater lines, storm sewers, irrigation lines and both underground and overhead electric and telephone lines can have a considerable impact on trees. The layout of the project site utility plans should accommodate the required tree protective zones. Utilities should be placed along corridors between tree protective zones. Developers shall coordinate the location of utility lines, including irrigation and electric lighting, with the utility companies in order to prevent root damage within the critical root zones of protected trees and to minimize damage to trees located in protected zones.
  - e) Construction activities such as parking, material storage, concrete washout, burnhole placement, etc. shall be arranged so as to prevent disturbances within

tree protective zones. No disturbance shall occur within the protective zone of specimen trees or stands of trees without prior approval of the City.

- f) Sidewalks often appear innocuous on plans, but can be very detrimental to trees due to grading requirements. Considerations should be given to move sidewalks as far from tree trunks as possible and provide a finished grade above the existing grade for sidewalks required in close proximity to a tree trunk. Drainage can be routed under sidewalks where an elevated grade is required.

## **Sec. 106 PROTECTION OF EXISTING TREES**

1. Tree protection devices are necessary to eliminate activities detrimental to trees including, but not limited to:
  - a) Soil compaction in the critical root zone resulting from heavy equipment, vehicular or excessive pedestrian traffic, or storage of equipment or materials;
  - b) Root disturbance due to cuts, fills, or trenching;
  - c) Wounds to exposed roots, trunks, or limbs by mechanical equipment;
  - d) Other activities such as chemical storage, cement truck cleaning, fire, etc.
2. Existing trees identified to be preserved and counted as credit towards meeting required site tree density shall have a four-foot tree protection fencing installed at the critical root zones. For methods of tree protection, see subsections (4)a through f of this Sec. 107. Tree protection devices shall be installed prior to the start of any land disturbance and maintained until final landscaping is installed. No construction activities are to occur within tree protection areas. Areas designated for parking, materials and equipment storage or staging areas are to be located outside of the drip line of existing trees.
3. The City will conduct periodic inspections of the site before work begins and during clearing, construction, and post construction phases of development in order to ensure compliance with these regulations and the intent of this article. Tree protection must remain in functioning condition throughout all phases of development. Failure to comply with and/or maintain approved tree protection measures may result in a stop work order issued by the City.
4. Methods of tree protection

The root system within the drip line is generally considered to be the critical root zone. Most trees can tolerate only a small percentage of critical root zone loss. To protect these critical root zones, a tree protection area shall be established around each tree or group of trees to be retained. The following section describes ways to help control unnecessary encroachment on existing trees. These methods and guidelines will be followed for tree protection throughout all phases of construction. These guidelines are designed to reduce damage to critical root zones and wounds to exposed roots, trunks, and limbs by chemical, mechanical, and other means. Tree protection areas will be delineated on tree protection plan and methods of protection will be clearly noted and detailed.

- a) **Active protective barriers** - Barriers shall be installed along the outer edge of and completely around the critical root zones of all specimen trees or stands of trees, or otherwise designated tree protective zones, prior to any land disturbance. Deviations from this must be approved on an individual basis by the City. Barriers will be a minimum four (4) feet high. Construction of the fence shall conform to the detail provided in **Appendix B**. All tree protection zones should be designated as such with "tree save area" signs posted visibly on all sides of the fenced in area. All tree fencing shall be maintained throughout the land disturbance and building construction, and should not be removed until all construction and landscaping is complete.
- b) **Passive protective barriers** - Tree save areas and their critical root zones not within 60 feet of any grading, storage, construction or traffic areas may be protected by four-foot orange plastic safety fencing or continuous plastic flagging. Tree protection materials shall consist of heavy mil, plastic flagging, a minimum four inches in width with dark letters reading "Tree Protection Area. Do Not Enter" or equivalent signage on a continuous durable restraint. Passive tree protection fencing is to be used only for areas remote from construction activity.
- c) **Boring** - No open trenching will be allowed within the protected zone as defined by the protective barricades. All underground utilities to be installed within this protection zone shall be installed by boring underneath the root zone. Any exceptions must be approved by the City. Utilities may be tunneled in the root zone at a twenty-four-inch minimum depth providing that plans are approved showing the location and method.
- d) **Filling/clearing within root zone** - Fill dirt no deeper than two inches may be allowed within the drip line of the tree. No grubbing is permitted in the root zone. In the protected root zone, any stumps, dead trees and shrub growth to be removed shall be cut flush or ground out. Stump grinding will be accomplished with equipment and methods acceptable in normal arboriculture operations. All holes will be backfilled completely the same day of the operation.
- e) **Clearing adjacent to tree save areas** - Roots often fuse and tangle amongst trees. The removal of trees adjacent to tree save areas can cause inadvertent damage to the protected trees. Wherever possible, it is advisable to cut minimum two-foot trenches (e.g. with a ditch witch) along the limits of land disturbance, so as to cut, rather than tear, the roots. Trenching may be required for the protection of specimen trees. The cutting down and then grinding the stump of the adjacent removed trees, as opposed to bulldozing them and ripping their roots, can also aid the protected trees.
- f) **Tree removal** - To minimize potential root loss from soil disturbance in an overlapping root situation. All roots attached to a tree inside a tree save area that extend outside the tree save areas shall be cut by hand if the soil is to be disturbed. The removal of any tree adjacent to a tree within a tree save area shall not be removed by heavy equipment. Cutting the roots by hand or with a ditch witch is acceptable.

**Sec. 107 DETERMINATION OF SITE DENSITY FACTORS**

1. **All projects within the City, with the exception of the construction of individual single-family and detached dwellings, shall maintain (in perpetuity) or exceed a minimum site density factor of 16 units per acre.**

Minimum tree site density shall be calculated as shown below

EXAMPLE

Total acres	25
-Area of buffers	<u>5</u>
Net area	20 acres

Required Minimum Site Density = 16 units x 20 acres = 320 units required.

2. The term "unit" is not synonymous with "tree." The unit density may be achieved by counting existing trees to be preserved, and or planting new trees in accordance with the minimum standards of this Article, or some combination of the two. Unit values are computed as provided at Appendix "C".
3. Existing and proposed trees outside established zoning buffers can be used for density credit. Proposed trees shall be reasonably distributed throughout the site with emphasis on tree groupings to achieve results following professional landscape standards.
4. The minimum sized existing tree that will count toward tree density credit is 8" caliper dbh (eight inches). All existing trees that are to be counted toward meeting density requirements must be inventoried as specified in **Appendix C**.
5. New trees shall be provided utilizing a combination of shade/canopy trees and understory trees in a ratio of 1 to 3. The site density requirement must be met whether or not a site had trees prior to development.
6. **Individual single-family lots are required to provide a site density factor of 2 tree units per acre.** This density shall be achieved by planting a combination of shade/canopy trees and understory trees in a ratio of 1 to 3 with a minimum of 1 Shade/canopy required. Shade/canopy trees shall be at least ten feet tall planted and have a trunk of not less than three caliper inches. Understory shall be at least six feet tall planted and have a trunk of not less than two caliper inches. A minimum of fifty percent of the required planting shall be placed in the front yard. Improvements on residential lots shall be located so as to provide minimum disturbance to the natural topography of the site and protection to the maximum number of trees. Existing trees that are protected and saved on the lot can be credited toward the lot density requirement as well as the overall subdivision requirement.



7. Where the proposed development area is so dense that the minimum site density factor can not reasonably be achieved, the development area shall be reduced by removing parking spaces in excess of the minimum number of spaces required by zoning, placing additional planting islands within the development area, or reducing the area to be occupied by buildings. A variance for parking must be filed with the City prior to such activities.
8. Any tree, designated on the tree protection plan to be saved, which is damaged during construction or as a result of construction, as determined by the City, shall be replaced with a tree or trees equal to the unit value of the tree damaged
9. Trees which are used to meet the tree density requirements shall be maintained for two years after the date of final inspection and kept in perpetuity. It is the responsibility of the property owner to maintain tree health and vigor. Failure to maintain the required tree density factor at any time during the life of the project shall be a violation of this article. All unhealthy and dead plant material shall be replaced within 45 days in conformance with the approved landscaping plan.
10. The developer/owner shall guarantee all plant materials for a minimum of two years from implementation. The City shall inspect said improvements and shall make a determination of whether or not the required trees and landscaping are healthy and have a reasonable chance of surviving to maturity. The owner shall be notified by letter of any replacements or restoration that must be made to maintain compliance with this article. All unhealthy and dead plant material shall be replaced within 45 days in conformance with the approved landscaping plan.

## **Sec. 108 SPECIMEN TREES**

1. Some trees on a site warrant special consideration and encouragement for protection. These trees are referred to as specimen trees. Trees unique due to age, size, species or historic relevance are to be identified during the survey process and special consideration must be made to work around them. It is required that all reasonable efforts be made to save specimen trees. Reasonable effort shall include, but not limited to, alteration of building design, alternate building location, parking area, detention area, drainage system, or relocation of utilities. These trees are to be identified and highlighted on the tree protection plan. Design of buildings, hardscapes and utilities are to be developed with consideration to preserving and featuring specimen trees.
2. The following criteria are used by the City to identify specimen trees. Both the size and condition criteria must be met for a tree to qualify:
  - a). Size criteria:
    1. Large hardwoods (oaks, poplars, sweetgums, etc.): twenty-seven-inch (27") diameter or larger.

2. Large softwoods (pines, deodar cedar, etc.): thirty-inch (30") diameter or larger.
3. Small trees (dogwoods, redbuds, sourwoods, etc.); eight-inch (8") diameter or larger.

b). Condition criteria:

1. Life expectancy of more than 15 years.
2. Relatively sound and solid trunk with no extensive decay.
3. No more than one major and several minor dead limbs (hardwoods only).
4. No major insect or pathological problem.

c). A lesser sized tree can be considered a specimen tree, if in the judgment of the City:

1. It is a rare or unusual species or of historical significance.
2. It is specifically used by a builder, developer, or design professional as a focal point in a project or landscape.
3. It is a tree with exceptional aesthetic quality.

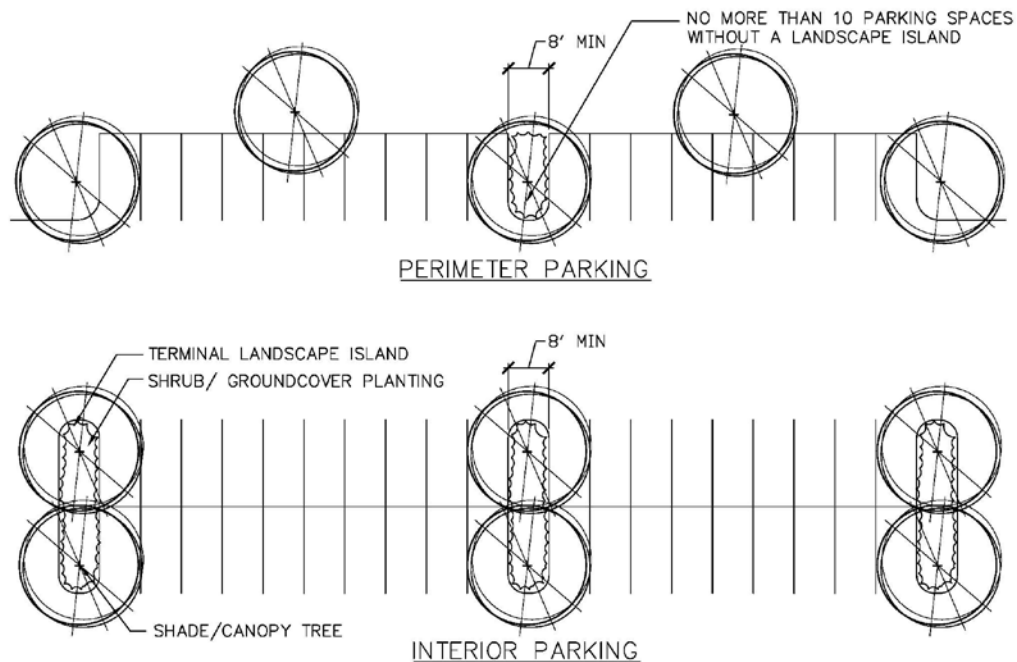
3. Replacement of specimen trees

- a. In the event any specimen trees are to be removed during the land development process, the applicant shall be required to replace the specimen trees being removed with suitable replacement trees. Removed specimen trees shall be replaced by species with potential for comparable size and quality.
- b. Specimen tree replacement will be required, in addition to the minimum required tree density requirements.
- c. Specimen trees that are removed must be replaced by trees, minimum three-inch caliper, and equal to the unit value of the specimen tree removed.
- d. Disturbance or encroachment into the critical root zone of a specimen tree exceeding 30% of the root zone will constitute the loss of the tree and require recompense.
- e. In the event any specimen tree or trees should not survive more than 24 months following completion of development, the owner of the property shall be required to replace said tree or trees with replacement trees (three-inch minimum caliper) equal to the unit value of the specimen tree.
- f. Any specimen tree which is removed without appropriate review and approval of the City must be replaced by trees equaling two times the unit value of the specimen tree removed. The owner of the property shall be required to replace said tree or trees with replacement trees which will be four-inch minimum caliper. The condition criteria stated above will determine whether a tree was of

specimen quality if the tree is removed without approval and there is not sufficient evidence of its condition. Such action may also result in a stop work order issued by the City.

## **Sec. 109     PARKING LOT TREE REQUIREMENTS**

1.     Parking lots containing 10 or more parking spaces shall be landscaped as indicated below. All trees planted to satisfy parking lot requirements can be applied to site density requirements.
2.     Trees shall be provided and maintained adjacent to and in the interior of parking lots in the ratio of one tree for each 5 parking spaces. In addition each parking space shall be within 60 feet of the trunk of a tree.
3.     Certain types of developments can obtain an exemption from the parking lot tree requirements listed in this section. These include, but are not limited to: warehouse loading and unloading areas, tractor-trailer parking, container storage yards, car dealerships, etc. Any exemptions to the parking lot requirements must be approved by the City prior to issuance of a LDA Permit.
4.     Trees provided to comply with this section shall be deciduous shade trees from Appendix "A" Approved Tree List and shall be at least 2-1/2" caliper inches at the time of planting.
  - A.     Parking lot planting
    1.     There shall be a minimum curb radii of three feet required on the corners of all landscape islands and medians to allow for free movement of motor vehicles around planting materials. Although innovative storm water management techniques are strongly encouraged, all islands and medians shall have raised curbs unless other storm water management techniques are approved.
    2.     Striping of parking islands is not permitted.
    3.     Parking lot lighting shall be coordinated with the tree locations in the parking lot.
    4.     At the end of all rows of parking a terminal landscape island or area shall be provided to protect parked vehicles, confine moving traffic to aisles and driveways, and provide space for landscaping. A terminal island for a single row of parking spaces shall be planted with at least one canopy/shade tree. A terminal island for a double row of parking spaces shall contain two shade/canopy trees.



5. All landscape islands within parking lots shall be 100 percent landscaped with deciduous trees, evergreen shrubs (not to exceed three feet high at maturity), ground cover (which does not require mowing) and/or flowers in mulched beds.
6. Parking areas designated to comply with this section must install landscape islands so that no more than 10 adjacent parking spaces exist without a landscaped island. If significant tree save areas or natural areas exist within a parking area, the City may make an exception to this requirement, as appropriate.
7. Parking lot islands shall have a minimum width of eight feet measured from back of curb to back of curb and be equal in length to the adjoining parking space.
8. Landscaped areas between parking areas and buildings shall not be considered as interior landscaping.
9. Areas used principally for storage of vehicles or display areas do not require interior islands if such areas are screened from adjacent properties and public streets.
10. The perimeter of all parking areas shall be landscaped as a minimum with groundcover or turf.
11. Where parking lots abut a public right of way a 10 foot wide landscape strip should be provided between the property line and the back of curb or edge of

pavement. The strip should contain a continuous evergreen hedge to screen parking lot. Plantings in the hedge should be spaced such that a continuous hedge is created within 3 years of planting. The hedge should not exceed 3' in height or block vehicular site distance at the site entry. This requirement shall be coordinated with any requirement of Section 111 "Landscape Strip Planting" when requirements overlap.

12. Where parking lots abut side or rear property lines or differing uses within mixed use developments the strip should contain a continuous evergreen hedge to screen the parking lot. When a parking lot abuts an undisturbed zoning buffer this requirement can be waived by the City.

13. Trees shall be planted at a minimum of three feet from any curb, so as to prevent injury to trees by vehicle bumpers. Where landscaped areas are located adjacent to vehicle overhangs, the trees shall be planted in line with the striping between parking spaces in order to avoid injury to trees by vehicle bumpers. Curb stops must be used to prevent vehicle overhang into required landscape strips and parking islands when curbing is not used.

## **Sec. 110 LANDSCAPE PLANTING STRIP REQUIREMENTS**

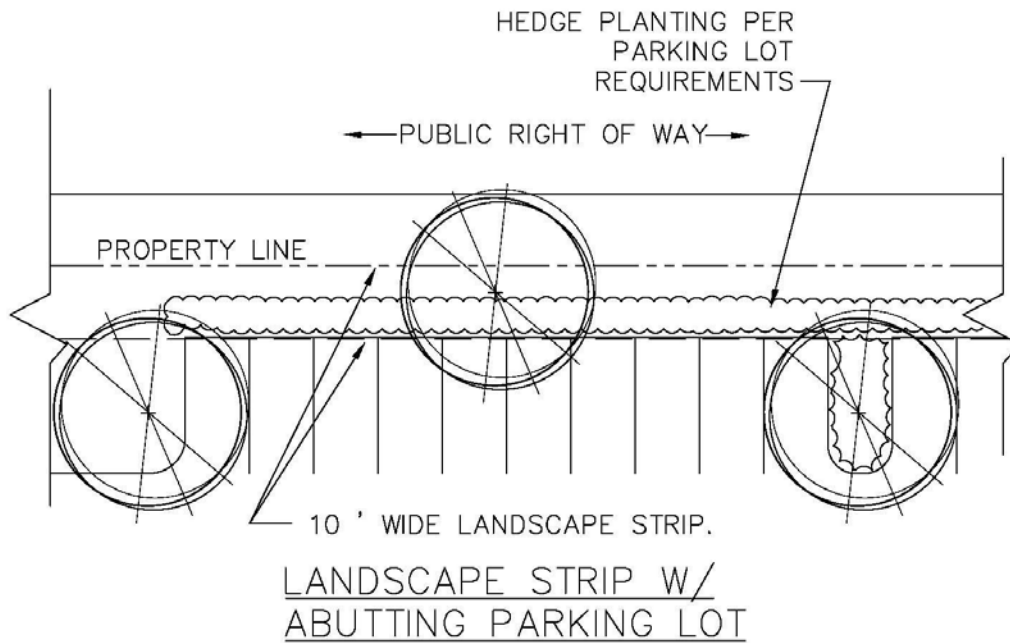
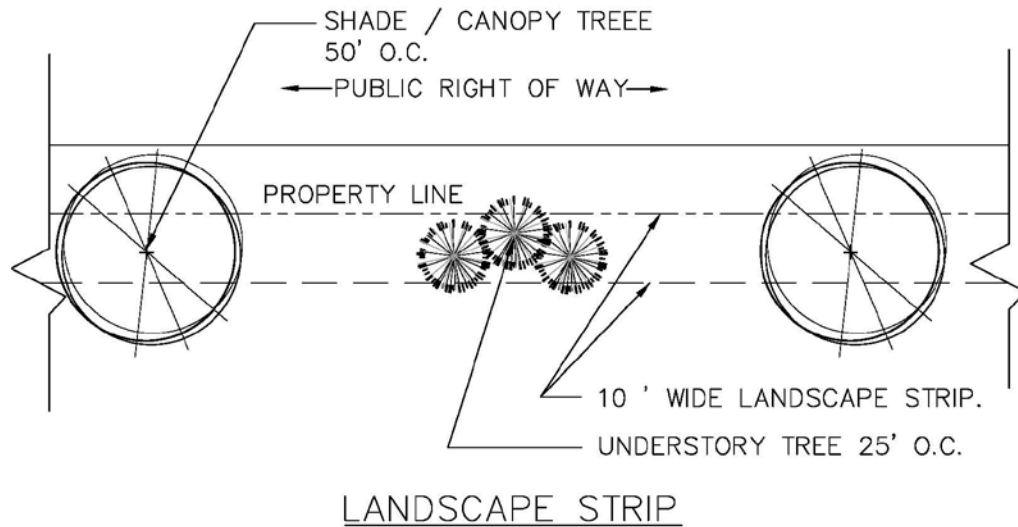
1. Landscape strips shall be used to enhance the public appearance of any non residential property located along a public right of way. The following minimum requirements shall apply to landscape planting strips:

2. Landscape strips

A. Landscape plantings shall be provided in a landscape strip of at least ten feet in width adjacent to any street right-of-way abutting the property and running the length of the entire property frontage, or as required by a condition of zoning, special use or variance approval.

B. No permanent structures are permitted within landscape strips, with the exception of identification signage and light posts. This includes pavement, retaining walls, curbing, dumpsters, drainage structures, detention facilities, rip-rap, utility boxes, vacuum/air/water, etc.

C. Landscape strips shall contain one canopy tree (min 2-1/2" caliper) per 50 feet (50') and one understory (min. 1-1/2" caliper) tree per twenty five (25'). Clumping is permitted provided that adequate spacing is allowed for future growth of the tree and there is no gap greater than 50 feet.



- D. The remaining ground area shall be sodded, seeded, or hydroseeded with grass, and/or planted with shrubs. Landscape strips located adjacent to parking lots must comply with the requirements of Section 110.
- E. Where landscaping areas adjoin grassed rights-of way, such areas shall be considered part of the landscaped area for purposes of maintenance. As of completion of site improvements, the property owner shall have an implied easement on rights-of-way extending from the site to the road pavement in order to complete the required maintenance.

F. Where existing tree save areas about the public right of way, the landscape strip requirements may be waived at the discretion of the City.

**Sec. 111 BUFFERS**

1. Buffers are required to achieve a visual barrier between properties of different use. However, existing or proposed plant material located within a buffer cannot be applied toward density requirements of a site. The area of a buffer can be subtracted from the total area of a site when calculating density requirements.
2. Buffer widths shall be as indicated in this ordinance or as allowed by variance or zoning conditions. Buffer plantings can be located within the setback limits required by zoning. In the case where buffer zones are wider than setback requirements, the buffer zones supersede. Unless otherwise directed by zoning or this ordinance, buffers shall remain undisturbed. When existing vegetation exists in a buffer it shall be protected from encroachment during construction.
3. Where buffers are void of existing vegetation adequate enough to provide a visual barrier or the buffers have been violated, the owner / developer is responsible for replanting. Refer to the buffer examples below for a formula based on the square footage of the entire buffer or portion thereof that is void of adequate material .
4. Adequacy of the undisturbed buffers to provide a visual barrier will be determined by the City based on visual analysis and the types of existing plant material and reserves the right to require remedial evergreen understory planting if it is determined that the undisturbed buffer does not provide an adequate visual buffer.
5. The City of Garden City encourages the control or elimination of invasive plant material including Chinese Privet, Kudzu, Wisteria, etc. Selective clearing in buffers to remove noxious or invasive plant material and the methods of removal will require the approval of the City. Selective buffer clearing will be reviewed on a case by case basis. Removal of material may require the replanting to buffer standards if the buffer is over cleared.
6. Buffer zones shall be provided as follows:

GENERAL ZONING CLASSIFICATION	GENERAL ZONING CLASSIFICATION						
	Single Family Residential	Multi-Family Residential	Commercial	Institutional	Office	Industrial	Mixed-Use
Single Family Residential	X	10'	25'	10'	25'	50'	10'
Multi-Family Residential	10'	X	25'	10'	25'	50'	10'
Commercial	25'	25'	X	10'	10'	50'	25'
Institutional	10'	10'	10'	X	10'	50'	10'
Office	25'	25'	10'	10'	X	50'	25'
Industrial	50'	50'	50'	50'	50'	X	50'
Mixed-Use	10'	10'	25'	10'	25'	50'	X

**Type I Buffer shall be applied to all buffers less than 50' wide:**

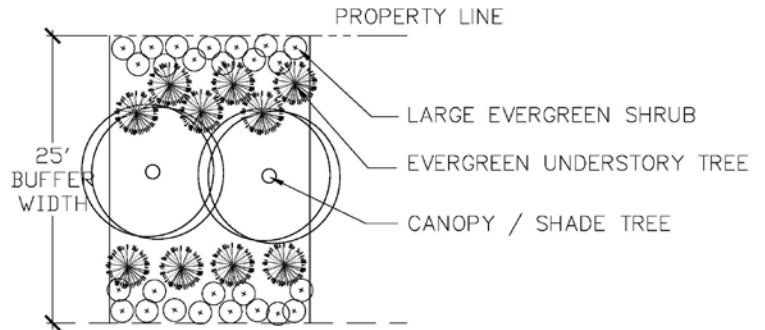
The following plant material shall be provided per 1000 square foot of buffer area to be vegetated.

- 1 Shade/Canopy trees
- 5 Evergreen understory trees
- 15 large evergreen shrubs

**EXAMPLE 1 - 50 FOOT BUFFER**  
1750sf Buffer area

- 1.75 x 1 tree= 2 trees
- 1.75 x 5 Understory trees = 9 trees
- 1.75 x 15 Large shrubs = 26 shrubs

Round up when quantity exceeds .5.



EXAMPLE @ LESS THAN 50' BUFFER

**Type II Buffer shall be applied to all buffers 50' wide:**

The following plant material shall be provided per 1000 square foot of buffer area to be vegetated.

- 1 Shade/Canopy trees
- 5 Evergreen understory trees
- 15 large evergreen shrubs

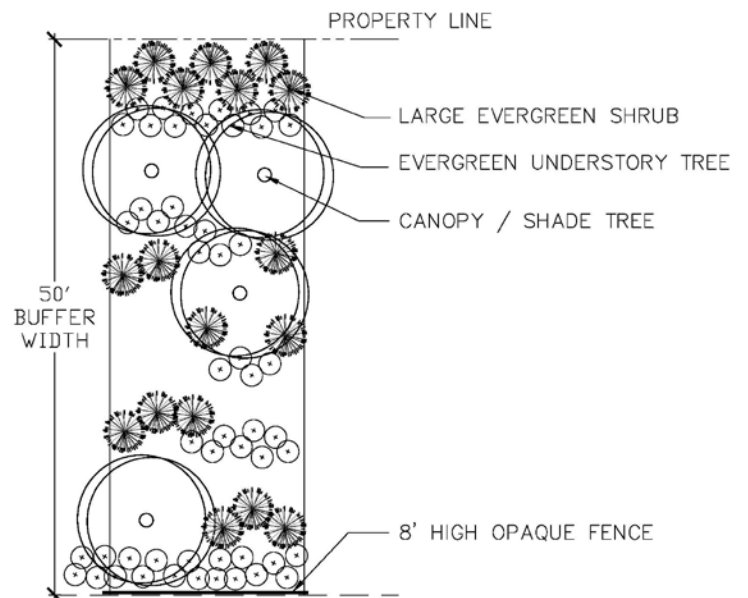
**EXAMPLE 2 - 100 FOOT BUFFER**

- 3500sf Buffer area
- 3.5 x 1 tree= 4 trees
- 3.5 x 5 Understory trees = 18 trees
- 3.5 x 15 Large shrubs = 53 shrubs

Round up when quantity exceeds .5

Minimum tree sizes upon installation are as follows:

- Canopy/shade tree size: 2inch caliper
- Understory evergreen: 6 feet high
- Large shrub size 24" high



EXAMPLE @ 50' BUFFER

In addition to the material required for the Type II Buffer a continuous 8' high opaque wood fence shall be installed on the inside of the buffer along the entire buffer when



no effective vegetation exists. Property owner is responsible for installing access gates along with the fence in order to maintain the buffer.

## **Sec. 112 SCREENING**

Screening shall consist of the visual blocking of views of onsite service equipment and areas. The following items shall be screened as indicated below.

1. Dumpster and trash storage/collection areas shall be adequately screened so as not to be visible from streets and/or adjacent properties regardless of adjacent land use or zoning classification. Enclosures must be constructed of the same exterior wall material used for the building. The enclosure shall be a foot higher than what is contained in the interior.
2. Loading / service areas shall be adequately screened so as not to be visible from any streets and/or adjacent properties. These areas shall be screened using upright evergreen plantings, 6 feet tall at the time of installation, spaced at a maximum of 8 feet on center.
3. Heating and cooling units for all developments including single-family shall be adequately screened with vegetation so as not to be visible from streets and/or adjoining properties.
4. Non-amenity detention ponds and other related storm water management facilities shall be screened from view by a continuous evergreen screen 36 inches tall at the time of installation and maintained at a minimum height of 42 inches. Maintenance access may remain open but arranged to prevent direct view into the facility.
5. Plants shall be spaced so as to provide for effective visual screening within three growing seasons.

## **Sec. 113 BUILDING LANDSCAPE REQUIREMENTS**

This section relates to landscaping required adjacent to proposed buildings that are subject to this ordinance including single family residences. Any building subject to a building permit will be required to provide a 5 foot wide landscape strip along any face of the building that faces a public way. Landscaping in this area shall be comprised of a combination of shrubs and understory trees that soften the façade of the building. The following combination of plant material shall be provided:

1. Building Landscaping:
  - A. Provide one understory tree per 25 feet of building width. The required understory tree must be a minimum of 6 feet tall at installation and should be chosen from the City's approved plant list.

- B. Provide one evergreen shrub per 4 linear feet of building width. The required shrub must be a minimum of 24 inches tall at installation.
- C. Building width is defined as the width of the portion of the building that faced a public right of way.

## ARTICLE THREE

### **Sec. 114      PREPARATION OF THE TREE PROTECTION PLAN**

1. Tree protection plan requirements: Any proposal for development or improvement of any tract of land shall include a tree protection/ replacement plan, including trees to be planted in order to meet the minimum requirements of this ordinance. Such plan shall be submitted, along with other permit drawings, to the Planning and Economic Development Department prior to any clearing, grubbing, grading or other removal of the existing vegetation that may affect the health of existing tree coverage. No tree removal shall occur prior to approval of the tree protection plan. The tree protection plan may be submitted as part of a developer's landscape plan, provided that all required information is legible, or as a separate drawing which includes, as a minimum, the following:
  - a) Name, address, and phone number of owner of record and applicant.
  - b) Boundary lines of the tract by lengths and bearings, streets adjoining the property, total area of the tract, land lot, land district, north point, graphic scale, and date.
  - c) Surveyed location of all specimen trees and their critical root zones. Indicate those specimen trees proposed for removal or for protection. Removal of specimen trees is subject to City's approval. When encroaching on the critical root zone of a specimen tree, indicate the percent of impact.
  - d) Approximate location of all trees or stands of trees proposed to be protected and their critical root zone. Only trees that are designated on the tree protection plan will be counted towards density requirements.
  - e) Location of proposed buildings, structures and paved areas.
  - f) Locations of all existing and proposed utility lines. (Utility lines must be placed along corridors outside critical root zones of trees which will remain on the site.)
  - g) Limits of land disturbance, clearing, grading, and trenching.
  - h) Limits of tree protection areas, showing trees to be maintained and planted, specifying species and size.
  - i) Grade changes or other work adjacent to a tree, which would affect it adversely, with drawings or descriptions as to how the grade, drainage, and aeration will be maintained around the tree.
  - j) Methods of tree protection shall be indicated for all tree protection zones, including tree fencing, retaining walls, tunneling for utilities, aeration systems, transplanting, staking, signage, etc.
  - k) Procedures and schedules for the implementation, installation, and maintenance of all tree protection measures.
  - l) Plan should indicate staging areas for parking, materials storage, concrete washout, and debris burn where these areas might affect tree protection.
  - m) The required site tree density factor must be satisfied. Compliance shall be clearly demonstrated on the tree protection plan. Existing trees or stands of trees used in the density calculation must be clearly indicated on the drawing. A summary table of the number of existing trees to remain and new trees to be planted, by diameter shall be shown along with the calculations showing tree density achieved for the site.

- n) Additional information as required on a case by case basis. This could include, but is not limited to, a certified arborist's appraisal of the tree's viability and projected life span.
- o) Tree protection plans must be prepared and sealed by a landscape architect licensed to practice in the state of Georgia or a certified arborist.
- p) The following notes shall be indicated on both the tree protection plan and the grading plan in large bold letters. Additional notes may be required on a case by case basis.

- 1. CONTACT THE PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT TO ARRANGE A PRE-CONSTRUCTION CONFERENCE WITH THE CITY PRIOR TO ANY LAND DISTURBANCE.**
- 2. ALL TREE PROTECTION MEASURES SHALL BE INSTALLED AND INSPECTED PRIOR TO THE START OF ANY LAND DISTURBANCE AND MAINTAINED UNTIL FINAL LANDSCAPING IS INSTALLED. CALL THE PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT FOR AN INSPECTION BY THE CITY.**
- 3. NO PARKING, STORAGE, OR ANY OTHER CONSTRUCTION ACTIVITIES ARE TO OCCUR WITHIN TREE PROTECTION AREAS.**
- 4. A MAINTENANCE INSPECTION OF TREES WILL BE PERFORMED AFTER TWO FULL GROWING SEASONS FROM THE DATE OF THE FINAL CONSTRUCTION INSPECTION. PROJECT OWNERS AT THE TIME OF THE MAINTENANCE INSPECTION ARE RESPONSIBLE FOR ORDINANCE COMPLIANCE.**
- 5. ALL LANDSCAPE MATERIAL INSTALLATION SHALL CONFORM TO THE CURRENT STANDARDS OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2004) AND ARE SUBJECT TO APPROVAL BY THE CITY.**

## ARTICLE FOUR

### **Sec. 115 TREE REMOVAL STANDARDS AND GUIDELINES**

This section pertains to tree removal for reasons other than land development

1. Safety standards – Contractors engaged in tree removal shall be solely responsible for pedestrian and vehicular safety and control within the work site and shall provide the necessary warning devices, barricades, and ground personnel needed to give safety, protection, and warning within the area where tree removal or pruning is to occur. Blocking of public streets shall not be permitted unless prior arrangements have been made with the City and is coordinated with appropriate departments. Traffic control is the responsibility of the contractor and shall be accomplished in conformance with state, county and local highway construction codes.
2. Debris and logs shall not be left on the public right-of-way overnight. It shall be the responsibility of the contractor to remove and dispose of, in a proper and acceptable manner, all logs, brush and debris resulting from the tree removal operation unless otherwise directed by the City. No person shall be issued a tree removal permit unless said person agrees to remove all cut logs, brush, and debris from the premises. Removal of such debris shall be performed daily so as to not disrupt the work of other contractors on the site. Absolutely no burying on site is allowed. No burning on site is allowed.
3. It shall be the duty of any person or persons owning or occupying property bordering on any street upon which property there may be trees, to prune such trees in such a manner that they will not obstruct or shade street lights, obstruct passage of pedestrians on sidewalks, obstruct vision of traffic signs, or obstruct views of any street intersection. Any trees that are diseased or insect infested shall be removed, sprayed, or treated in such a manner that they will not infect or damage nearby public vegetation or cause harm to the community or citizens therein. The City may order trees on private land that causes obstructions, present insect or disease problems, or otherwise present a danger to public health or safety be pruned, removed, or treated.
4. Permits shall be obtained by any person or company engaged in the removal of trees for a fee set by the Mayor and City Council. The City will review the tree removal plans and inspect the project site when necessary. In the event an inspection is necessary to be determined at the discretion of the City, an inspection fee set by the Mayor and City Council shall be charged. If significant trees are removed from any property without a tree removal permit, the property owner shall pay a fine of three times the tree removal fee calculated. Minimum site tree densities must be maintained at all times. Permit fees shall be as set forth in the fee schedule for the City.
5. Any person, firm, corporation, company, or partnership violating any provision of this Ordinance shall be fined the maximum amount as provided for in the City of Garden City's Charter and/or penalized as provided in an ordinance which may be adopted by the City. Where an offense continues from day to day, each day's continuance thereof shall be deemed a separate offense. The owner of premises, where anything in violation of this article shall exist, or any person, firm, corporation, company, or partnership which may

have assisted in the commission of such violation shall be guilty of a separate offense and, upon conviction thereof, shall be punished as herein provided. Further, a violation of this ordinance shall result in the denial of any permit or application, including but not limited to building and rezoning for the entire property where the violation occurred for a period of three years after the violation.

**Sec. 116 TREE REMOVAL**

- A. Within the City of Garden City a tree removal permit is required prior to the removal of trees. A permit will be necessary regardless of whether a permit fee is assessed. Exemptions from permit fees include the following:
  - a. The removal of trees on actively residential or residentially zoned, without cost of a person or company engaged in removing the trees for a fee, shall not require a permit or pay any fee until they remove more than three trees at a time within a single calendar year. The removal of more than three trees at a time within a single calendar year will require a permit and fee based on the fee schedule determined by the City.
- B. Specimen tree removal regardless of location will require a permit.
- C. The removal of trees larger than 8” in diameter from any property without a tree removal permit, the property owner shall pay a fine of three times the tree removal fee calculated.
- D. Trees shall be removed in accordance with accepted industry standards and procedures and in accordance with the following minimum requirements: Extreme care shall be taken so as to prevent limbs, branches and trunks from falling and creating damage to adjacent homes, driveways, sidewalks, trees, shrubs, streets and other property, both public and private. The City recommends that this type of work is to be undertaken only by trained personnel or under the supervision of trained personnel, all of whom are covered with workers compensation, property damage, public liability, and completed operations insurance.

**Sec. 117 TREE PRUNING**

- 1. No permit is required for pruning trees.
- 2. The City recommends that pruning is to be performed by tree workers who, through related training and on the job experience, are familiar with the techniques and hazards of this work including trimming, maintenance, repairing or removal, and equipment used in such operations and in Accordance with ISA standards. The use of climbing spurs or irons is not approved in pruning operations on live trees. This type of work is a potentially hazardous occupation and is to be undertaken only by trained personnel or under the supervision of trained personnel, all of whom are covered with workers compensation, property damage, public liability, and completed operations insurance.

## **Sec. 118 MAINTENANCE AND FISCAL SURETY**

For all developments other than single-family residential subdivisions, trees planted to meet the requirements of this Ordinance shall be subject to a maintenance period.

Fiscal surety for the maintenance of said trees shall also be required in accordance with procedures provided in this Ordinance. The amount of the surety shall be 110 percent of the cost of all required plant materials and the cost of the installation and guarantee of those materials. The surety may be in the form of an escrow agreement, letter of credit or maintenance bond. The surety shall be prepared on forms provided by the Planning and Economic Development Department. The expiration date of the surety instrument shall be determined as 30 months from issuance of the Certificate of Occupancy.

If the original developer sells, transfers, assigns or conveys in any manner all or a portion of the property prior to the expiration date of the surety instrument, the original developer shall maintain the surety instrument until the expiration date. However, if an alternative surety instrument satisfactory to the Planning and Economic Development Department is provided by the subsequent owner of the property, the original developer may be partially or totally released from the developer's obligation under the original surety instrument upon receipt of written notification from the Planning and Economic Development Department accepting the alternative surety instrument. The alternative surety instrument must satisfy all requirements of the Tree Protection and Landscape Ordinance.

Prior to the release date of the fiscal surety, an inspection will be performed by the City to determine the health of all planted trees. Any plant materials that are dead, missing or in a state of irreversible decline at the time of the inspection must be replaced by the responsible party named on the surety instrument. The Planning and Economic Development Department shall provide the responsible party with a written evaluation of what trees need to be replaced and the time frame within which replacement is to occur.

All or part of the surety may be called if the conditions of the City's maintenance inspection letter are not met.

It shall be the duty of any person or persons owning or occupying property subject to this article to maintain said property in good condition so as to present a healthy, neat, and orderly appearance. Property shall be kept free from refuse and debris. Planting beds shall be mulched to prevent weed growth and maintain soil moisture. Plant materials shall be pruned as required to maintain good health and character. Turf areas shall be mowed periodically. All roadways, curbs, and sidewalks shall be edged when necessary in order to prevent encroachment from adjacent grassed areas.

All undisturbed buffers shall be maintained to insure the containment of invasive plant material. A listing of invasive plant material can be found in the "Invasive Plants of Georgia's Forests", published by the Georgia Invasive Species Task Force ([www.gainvasives.org](http://www.gainvasives.org)). The spreading of any material from the buffer onto adjacent property or into the public right of way is not permitted. The property owner is responsible for the control of this material and may be subject to a fine if these areas are not maintained.

## **Sec. 119 PLANT ESTABLISHMENT**

1. The City of Garden City encourages and has adopted the use of xeriscape planting. A manual for Xeriscape planting can be found in "Xeriscape: A Guide to Developing a Water-Wise Landscape" published by The University of Georgia Cooperative Extension Service (<http://pubs.caes.uga.edu/caespubs/pubcd/B1073.htm>).
2. As a minimum to facilitate maintenance and help establish plant material required by this Ordinance, water shall be made available in the following method:
3. Provide a water resource (hose connection) within 200 feet of all plantings to facilitate hand watering as necessary to establish planting.

## **Sec. 120 SINGLE-FAMILY RESIDENTIAL REQUIREMENTS**

**The following requirements refer to owner owned, single-family residential lots. This section does not pertain to developers.**

All of the information provided in this section can be found in previous sections of this ordinance classified under the specific criteria or categories. The items listed below are an overview of the landscape ordinance requirements for a single-family residential lot owner. Refer to the specific section listed for any additional requirements that must be met.

### **1. Site Density Requirements (Refer to Section 107; Pages 16 & 17)**

1. Individual single-family lots are required to provide a site density factor of 2 tree units per acre. This density shall be achieved by planting a combination of shade/canopy trees and understory trees in a ratio of 1 to 3 with a minimum of 1 Shade/canopy required. Shade/canopy trees shall be at least ten feet tall planted and have a trunk of not less than three caliper inches. Understory shall be at least six feet tall planted and have a trunk of not less than two caliper inches. A minimum of fifty percent of the required planting shall be placed in the front yard. Improvements on residential lots shall be located so as to provide minimum disturbance to the natural topography of the site and protection to the maximum number of trees. Existing trees that are protected and saved on the lot can be credited toward the lot density requirement.
2. The term "unit" is not synonymous with "tree." The unit density may be achieved by counting existing trees to be preserved, and or planting new trees in accordance with the minimum standards of this Article, or some combination of the two. Unit values are computed as provided at Appendix "C".
3. The minimum sized existing tree that will count toward tree density credit is 8" caliper dbh (eight inches). All existing trees that are to be counted toward meeting density requirements must be inventoried as specified in **Appendix C**.



## 2. Specimen Tree Replacement (Refer to Section 108; Pages 17, 18, & 19)

Some trees on a site warrant special consideration and encouragement for protection. These trees are referred to as specimen trees. Trees unique due to age, size, species or historic relevance are to be identified during the survey process and special consideration must be made to work around them. It is required that all reasonable efforts be made to save specimen trees. Reasonable effort shall include, but not limited to, alteration of building design, alternate building location, parking area, detention area, drainage system, or relocation of utilities. These trees are to be identified and highlighted on the tree protection plan. Design of buildings, hardscapes and utilities are to be developed with consideration to preserving and featuring specimen trees.

1. The following criteria are used by the City to identify specimen trees. Both the size and condition criteria must be met for a tree to qualify:

a). Size criteria:

1. Large hardwoods (oaks, poplars, sweetgums, etc.): twenty-seven-inch (27") diameter or larger.
2. Large softwoods (pines, deodar cedar, etc.): thirty-inch (30") diameter or larger.
3. Small trees (dogwoods, redbuds, sourwoods, etc.); eight-inch (8") diameter or larger.

b). Condition criteria:

1. Life expectancy of more than 15 years.
2. Relatively sound and solid trunk with no extensive decay.
3. No more than one major and several minor dead limbs (hardwoods only).
4. No major insect or pathological problem.

c). A lesser sized tree can be considered a specimen tree, if in the judgment of the City:

1. It is a rare or unusual species or of historical significance.
2. It is specifically used by a builder, developer, or design professional as a focal point in a project or landscape.
3. It is a tree with exceptional aesthetic quality.

2. Replacement of specimen trees

- a. In the event any specimen trees are to be removed during the land development process, the applicant shall be required to replace the specimen trees being removed with suitable replacement trees. Removed specimen trees shall be replaced by species with potential for comparable size and quality.

- b. Specimen tree replacement will be required, in addition to the minimum required tree density requirements.
- c. Specimen trees that are removed must be replaced by trees, minimum three-inch caliper, and equal to the unit value of the specimen tree removed.
- d. Disturbance or encroachment into the critical root zone of a specimen tree exceeding 30% of the root zone will constitute the loss of the tree and require recompense.
- e. In the event any specimen tree or trees should not survive more than 24 months following completion of construction, the owner of the property shall be required to replace said tree or trees with replacement trees (three-inch minimum caliper) equal to the unit value of the specimen tree.
- f. Any specimen tree which is removed without appropriate review and approval of the City must be replaced by trees equaling two times the unit value of the specimen tree removed. The owner of the property shall be required to replace said tree or trees with replacement trees which will be four-inch minimum caliper. The condition criteria stated above will determine whether a tree was of specimen quality if the tree is removed without approval and there is not sufficient evidence of its condition. Such action may also result in a stop work order issued by the City.

### **3. Screening (Refer to Section 112; Page 25)**

Screening shall consist of the visual blocking of views of onsite service equipment and areas. The following items shall be screened as indicated below.

1. Heating and cooling units for all developments including single-family shall be adequately screened with vegetation so as not to be visible from streets and/or adjoining properties.
2. Plants shall be spaced so as to provide for effective visual screening within three growing seasons.

### **4. Building Landscape Requirements (Refer to Section 113; Pages 25 & 26)**

This section relates to landscaping required adjacent to proposed buildings that are subject to this ordinance including single family residences. Any building subject to a building permit will be required to provide a 5 foot wide landscape strip along any face of the building that faces a public way. Landscaping in this area shall be comprised of a combination of shrubs and understory trees that soften the façade of the building. The following combination of plant material shall be provided:

Building Landscaping:

- a. Provide one understory tree per 25 feet of building width. The required understory tree must be a minimum of 6 feet tall at installation and should be chosen from the City's approved plant list.
- b. Provide one evergreen shrub per 4 linear feet of building width. The required shrub must be a minimum of 24 inches tall at installation.
- c. Building width is defined as the width of the portion of the building that faced a public right of way.

**5. Tree Removal (Refer to Section 117; Page 30)**

- A. Within the City of Garden City a tree removal permit is required prior to the removal of trees. A permit will be necessary regardless of whether a permit fee is assessed. Exemptions from permit fees include the following:
  - a. The removal of trees on actively residential or residentially zoned, without cost of a person or company engaged in removing the trees for a fee, shall not require a permit or pay any fee until they remove more than three trees at a time within a single calendar year. The removal of more than three trees at a time within a single calendar year will require a permit and fee per acre based on the fee schedule determined by the City.
- B. Specimen tree removal regardless of location will require a permit.
- C. The removal of trees larger than 8" in diameter from any property without a tree removal permit, the property owner shall pay a fine of three times the tree removal fee calculated. All contractors for tree removal must be licensed, bonded, and insured.
- D. Trees shall be removed in accordance with accepted industry standards and procedures and in accordance with the following minimum requirements: Extreme care shall be taken so as to prevent limbs, branches and trunks from falling and creating damage to adjacent homes, driveways, sidewalks, trees, shrubs, streets and other property, both public and private. The City recommends that this type of work is to be undertaken only by trained personnel or under the supervision of trained personnel, all of whom are covered with workers compensation, property damage, public liability, and completed operations insurance.

**APPENDIX A  
CITY OF GARDEN CITY APPROVED PLANT LIST**

<b>OVERSTORY TREES</b>	
<b>Botanical Name</b>	<b>Common Name</b>
<i>Acer barbatum</i> *	Florida Maple
<i>Acer rubrum</i> *	Red Maple
<i>Carya glabra</i>	Pignut Hickory
<i>Cedrus atlantica</i> 'Glaucá'	Blue Atlas Cedar
<i>Cedrus deodara</i>	Deodar Cedar
<i>Cryptomeria japonica</i>	Japanese Cedar
<i>Cunninghamia lanceolata</i>	China Fir
<i>Cupressus sempervirens</i>	Italian Cypress
<i>Fraxinus pennsylvanica</i> *	Green Ash
<i>Ginkgo biloba</i> *	Maidenhair Tree
<i>Juniperus virginiana</i>	Red Cedar
<i>Liquidambar styraciflua</i> *	Sweetgum
<i>Liriodendron tulipifera</i> *	Tulip Poplar
<i>Magnolia grandiflora</i> *	Southern Magnolia
<i>Metasoquoia glyptostroboides</i> *	Dawn Redwood
<i>Morus rubra</i>	Red Mulberry

<i>Nyssa aquatica</i>	Water Tupelo
<i>Nyssa sylvatica</i>	Black Gum
<i>Pinus echinata</i>	Shortleaf Pine
<i>Pinus elliottii</i>	Slash Pine
<i>Pinus glabra</i>	Spruce Pine
<i>Pinus palustris</i>	Longleaf Pine
<i>Pinus serotina</i>	Pond Pine
<i>Pinus taeda</i> *	Loblolly Pine
<i>Platanus x acerifolia</i>	London Planetree
<i>Platanus occidentalis</i>	American Sycamore
<i>Quercus acutissima</i>	Sawtooth Oak
<i>Quercus alba</i>	White Oak
<i>Quercus falcate</i> *	Southern Red Oak
<i>Quercus laurifolia</i>	Laurel Oak
<i>Quercus lyrata</i>	Overcup Oak
<i>Quercus macrocarpa</i>	Bur Oak
<i>Quercus michauxii</i>	Swamp Chestnut Oak
<i>Quercus nigra</i> *	Water Oak
<i>Quercus phellos</i> *	Willow Oak
<i>Quercus shumardii</i> *	Shumard's Red Oak

Quercus stellata	Post Oak
Quercus velutina	Black Oak
Quercus virginiana*	Live Oak
Taxodium ascendens	Pond Cypress
Taxodium distichum*	Bald Cypress
Ulmus americana	American Elm
Ulmus parvifolia*	Lacebark Chinese Elm
Zelkova serrata*	Japanese Zelkova
<b>UNDERSTORY TREES</b>	
<b>Botanical Name</b>	<b>Common Name</b>
Acer buergerianum*	Trident Maple
Acer palmatum	Japanese Maple
Amelanchier arborea	Downy Serviceberry
Amelanchier canadensis	Shadblow Serviceberry
Betula nigra*	River Birch
Carpinus caroliniana*	American Hornbeam
Catalpa bignonioides	Common Catalpa
Cercis Canadensis*	Eastern Redbud
Cercis reniformis 'Oklahoma'	Oklahoma Redbud
Chionanthus retusus	Chinese Fringetree

<i>Chionanthus virginicus</i> *	Fringetree
<i>Cornus florida</i>	Flowering Dogwood
<i>Cornus kousa</i>	Kousa Dogwood
<i>Eriobotrya japonica</i> *	Loquat
<i>Fraxinus caroliniana</i>	Carolina Ash
<i>Fraxinus profunda</i>	Pumpkin Ash
<i>Gleditsia aquatica</i>	Water Locust
<i>Halesia carolina</i>	Carolina Silverbell
<i>Ilex x attenuate</i> 'East Palatka'	East Palatka Holly
<i>Ilex x attenuate</i> 'Fosteri'	Foster Holly
<i>Ilex x attenuate</i> 'Savannah'*	Savannah Holly
<i>Ilex x</i> 'Nellie R. Stevens'*	Nelly R. Stevens Holly
<i>Ilex cassine</i>	Dahoon Holly
<i>Ilex latifolia</i> *	Lusterleaf Holly
<i>Ilex opaca</i> *	American Holly
<i>Ilex vomitoria</i>	Yaupon Holly
<i>Juniperus salicicola</i>	Southern Red Cedar
<i>Koelreuteria bipinnata</i>	Bougainvilla Goldenraintree
<i>Lagerstroemia indica</i> *	Crape Myrtle

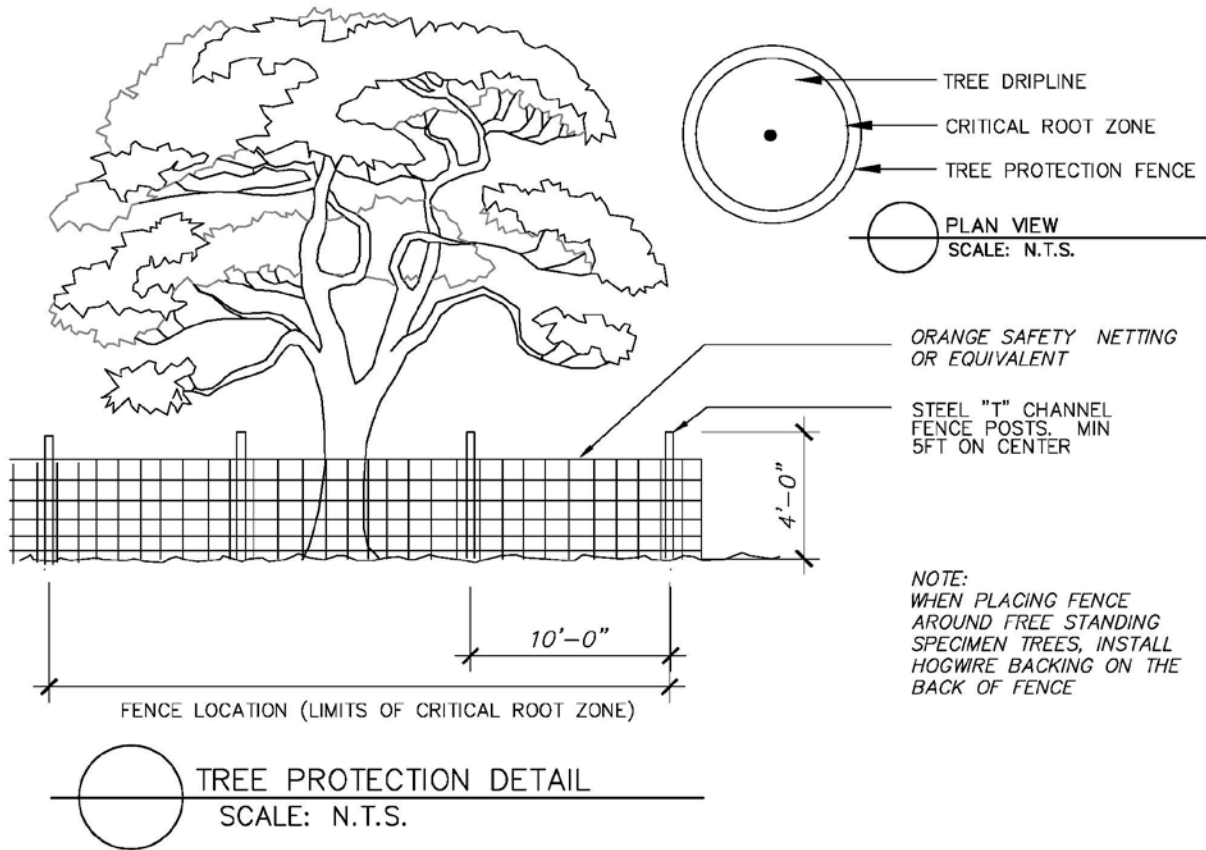
Ligustrum lucidum	Glossy Privet
Magnolia x soulangeana*	Saucer Magnolia
Magnolia stellata	Star Magnolia
Magnolia virginiana	Sweet Bay Magnolia
Myrica cerifera	Wax Myrtle
Osmanthus x fortunei	Fortune's Tea Olive
Osmanthus fragrans	Fragrant Tea Olive
Ostrya virginiana	Eastern Hophornbeam
Oxydendrum arboreum	Sourwood
Parrotia persica	Persian Parrotia
Pistacia chinensis	Chinese Pistachio
Podocarpus macrophyllus 'Maki'	Southern Yew
Prunus caroliniana	Carolina Cherry Laurel
Prunus cerasifera 'Atropurpurea'	Purple-leafed Plum
Prunus mume	Flowering Apricot
Prunus persica	Flowering Peach
Prunus serrulata*	Japanese Flowering Cherry
Prunus yedoensis*	Yoshino Cherry
Robinia pseudoacacia	Black Locust
Salix nigra	Black Willow



Sassafras albidum	Sassafras
Vaccinium arboreum	Sparkleberry
Vitex agnus-castus*	Lilac Chastetree
<b>PALM TYPE TREES</b>	
Botanical Name	Common Name
Butia capitata	Pindo Palm
Chamaerops fumilis	European Fan Palm
Cycas revoluta	Sago Cycas
Phoenix canariensis	Canary Date Palm
Rapidophyllum histrix	Needle Palm
Sabal etonia	Scrub Palmetto
Sabal minor	Dwarf Palmetto
Sabal palmetto	Cabbage Palmetto
Serenoa repens	Saw Palmetto
Trachycarpus fortunei	Fortune's Windmill Palm
Washingtonia robusta	Washington Palm

(\*) Denotes plants listed as “Durable Plants for Xeriscape-Type Landscapes” in “Xeriscape: A Guide to Developing a Water-Wise Landscape” published by The University of Georgia Cooperative Extension Service (<http://pubs.caes.uga.edu/caespubs/pubcd/B1073.htm>).

## APPENDIX B TREE PROTECTION FENCING



**APPENDIX C  
CALCULATION CHARTS FOR REQUIRED TREE DENSITY**

**CONVERSION FROM DIAMETER TO DENSITY FACTOR UNITS FOR EXISTING TREES TO BE PRESERVED.**

DIAMETER (DBH)	UNIT VALUE
8 inches	0.3
9-12 inches	0.6
13-16 inches	1.2
17-20 inches	1.9
21-24 inches	2.8
25-28 inches	3.8
29-32 inches	5.1
33-36 inches	6.5
37-40 inches	8.1
41-43 inches	9.6
44-46 inches	11.0
46 inches and above	use formula below

**The unit value for any tree can be determined by using the following formula  
 $(\text{Diameter})^2 \times .7854 \div 144$**

**CONVERSION FROM DIAMETER TO DENSITY FACTOR UNITS FOR REPLACEMENT TREES**

1-1 ½"	.4
2-2 ½"	.5
3-3 ½"	.6
4-4 ½"	.7
5-5 ½"	.9
6-6 ½"	1.0

**CONVERSION FROM HEIGHT TO DENSITY FACTOR UNITS FOR REPLACEMENT TREES  
FOR TREES TYPICALLY SOLD BY HEIGHT**

6-8 feet	.4
10-12 feet	.5
14-16 feet	.6
18-20 feet	.7
22-24 feet	.9

## **ARTICLE FIVE**

This Ordinance was enacted in accordance with the Zoning Procedures Law, O.C.G.A. Section 36-66-1, et seq, and shall become immediately effective upon its second reading and adoption by the City Council.

## **ARTICLE SIX**

The Preamble of this Ordinance shall be construed to be, and is hereby incorporated by reference as is fully set out herein.

## **ARTICLE SEVEN**

The sections, paragraphs, sentences, clauses, and phrases of this Ordinance are severable, and if any phrase, sentence, paragraph, or section of this Ordinance shall be declared illegal by the valid judgment or decree of any court of competent jurisdiction, such an illegality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Ordinance.

## **ARTICLE EIGHT**

All ordinances and parts of ordinances in conflict herewith are hereby expressly repealed.

**[Signatures on next page]**

**APPROVED BY THE MAYOR AND COUNCIL OF THE CITY OF GARDEN CITY** at a regular meeting of the Mayor and Council on the \_\_\_\_\_ day of \_\_\_\_\_, 2007, by the following voting for adoption:

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Council Member

\_\_\_\_\_  
Council Member

\_\_\_\_\_  
Council Member

\_\_\_\_\_  
Council Member

\_\_\_\_\_  
Council Member

\_\_\_\_\_  
Council Member

Attest:

\_\_\_\_\_  
City Clerk